



**2014 1<sup>st</sup> Quarter Report to the  
Lowell, Massachusetts  
Board of Health**

**Reporting Period: January 2014 through March 2014**



## INTRODUCTION:

This is the 2014 1<sup>st</sup> Quarter Report for the Lowell Board of Health.

We have gone back to a quarterly presentation because at the 2013 End of Year Presentation a request by the Board of Health for additional data regarding the utilization of Non-Trinity EMS units for emergency response was made.

As requested, we did look back at 2013 and found nine (9) occurrences where we utilized a Non-Trinity EMS unit for a 911 Emergency Response. In 2013 we responded to 12,687 911 emergencies. Therefore for 2013 we had a 0.071% of Non-Trinity EMS Unit utilization.

For the 1<sup>st</sup> Quarter of 2014, we had three (3) occurrences in which a Non-Trinity EMS Unit was utilized for a 911 Emergency Response. This yielded a 0.067% Non-Trinity EMS Unit utilization. All three utilizations were due to emergency request volume.

For reader clarification, we changed “*Saints*” to “*LGH Paramedics*” wherever “*Saints*” had been previously labeled.

We also left yearly totals where indicated for both 2012 & 2013.

Any questions, comments, or concerns surrounding the contents of this report should be directed to:

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Thank You,

Management Team  
Trinity EMS, Inc.



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**TRINITY EMS, INC.**  
**LOWELL MASSACHUSETTS EMS PERFORMANCE INDICATORS**  
**REPORTING TIME PERIOD: 1<sup>ST</sup> QUARTER 2014**

City of Lowell: Population: Approx. 106,500

Geographic Size: 14.5 Sq. miles

**911 OPERATIONAL PERFORMANCE – DATA**

**TIMES:**

	FIRST QUARTER – PERFORMANCE SCORE = 96.24%			SECOND QUARTER – PERFORM SCORE =		
	Trinity EMS	Trinity ALS	LGH Paramedics	Trinity EMS	Trinity ALS	LGH Paramedics
Ave. Out of Chute	1 min. 1 sec.	1 min. 6 sec.	59 sec.			
Ave. Response	4 min. 9 sec.	4 min. 18 sec.	5 min. 15 sec.			
Ave. On Scene	12 min. 13 sec.	9 min. 36 sec.	16 min. 23 sec.			
Ave. Transport	4 min. 37 sec.	4 min. 2 sec.	4 min. 37 sec.			
# of events greater than 7 min. 59 sec. response times:	180					
# of events using NON-Trinity EMS Units:	3					

**TIMES CONTINUED:**

	THIRD QUARTER – PERFORM SCORE =			FOURTH QUARTER – PERFORM SCORE =		
	Trinity EMS	Trinity ALS	LGH Paramedics	Trinity EMS	Trinity ALS	LGH Paramedics
Ave. Out of Chute						
Ave. Response						
Ave. On Scene						
Ave. Transport						
# of events greater than 7 min. 59 sec. response times:						
# of events using NON-Trinity EMS Units:						

**VOLUME:**

	2012 YEARLY TOTAL	2013 YEARLY TOTAL	1 <sup>ST</sup> QUARTER 2014	2 <sup>ND</sup> QUARTER 2014	3 <sup>RD</sup> QUARTER 2014	4 <sup>TH</sup> QUARTER 2014
TOTAL RESPONSES (BLS & ALS)	18032	18538	4784			
TOTAL ALS RESPONSES	6440 / 35.71%	6740 / 36.36%	1793 / 37.48%			
TRINITY ALS RESPONSES	629 / 9.77%	621 / 9.21%	159 / 8.87%			
LGH PARAMEDICS RESPONSES	5811 / 90.23%	6119 / 90.79%	1634 / 91.13%			



**TRANSPORTS:**

	2012 YEARLY TOTAL	2013 YEARLY TOTAL	1 <sup>ST</sup> QUARTER 2014	2 <sup>ND</sup> QUARTER 2014	3 <sup>RD</sup> QUARTER 2014	4 <sup>TH</sup> QUARTER 2014
TOTAL TRANSPORTS (BLS & ALS)	12016	12687	3309			
TOTAL BLS TRANSPORTS	8994 / 74.85%	9838 / 77.54%	2580 / 77.97%			
TOTAL ALS TRANSPORTS	3022 / 25.15%	2849 / 22.46%	729 / 22.03%			
TRINITY ALS TRANSPORTS	386 / 12.77%	326 / 11.44%	73 / 10.01%			
LGH PARAMEDICS TRANSPORTS	2630 / 87.03%	2523 / 88.56%	656 / 89.99%			
Unable to Intercept	31 / 0.34%	34 / 0.35%	6 / 0.23%			
**TOTAL TRIAGED DOWN	1152 / 25.66%	1154 / 20.53%	378 / 26.85%			
**TRINITY ALS TRIAGED DOWN	29 / 6.67 % Denom = 435	43 / 8.08% Denom = 531	10 / 8.34% Denom = 120	Denom =	Denom =	Denom =
**LGH Paramedics Triageed Down	1123 / 27.70% Denom = 4054	1111 / 21.82% Denom = 5091	368 / 28.57% Denom = 1288	Denom =	Denom =	Denom =

\*\* = Denominator adjusted by removing cancelled calls

**NO TRANSPORTS:**

REASONS	2012 YEARLY TOTAL: 6016	2013 YEARLY TOTAL: 5854	1 <sup>ST</sup> QUARTER 2014: 1475	2 <sup>ND</sup> QUARTER 2014:	3 <sup>RD</sup> QUARTER 2014:	4 <sup>TH</sup> QUARTER 2014:
CANCELLED VIA ALS	214 / 3.56%	197 / 3.36%	44 / 2.98%			
CANCELLED VIA BLS	200 / 3.32%	266 / 3.86%	50 / 3.39%			
CANCELLED VIA CLOSER UNIT	157 / 2.61%	156 / 2.66%	47 / 3.19%			
CANCELLED VIA FAM/STAFF	51 / 0.85%	74 / 1.26%	8 / 0.54%			
CANCELLED VIA FIRE	539 / 8.96%	534 / 9.12%	136 / 9.22%			
CANCELLED VIA POLICE	1219 / 20.26%	1159 / 19.80%	231 / 15.66%			
NO EMS NEEDED	715 / 11.88%	644 / 11.00%	224 / 15.19%			
NO PT. FOUND	369 / 6.13%	337 / 5.76%	84 / 5.69%			
PT. DECEASED UPON ARRIVAL	75 / 1.25%	72 / 1.23%	27 / 1.83%			
REFUSAL	2433 / 40.44%	2440 / 41.68%	624 / 42.3%			
OTHER	44 / 0.73%	15 / 0.26%	0			



## 911 CLINICAL PERFORMANCE – DATA

### PARAMEDICS:

	First Quarter				Second Quarter				
Paramedics	Full Time	Part Time	Per Diem	Nat. Reg.	Tot. / Exp. Years	Full Time	Part Time	Per Diem	Nat. Reg.
Trinity – 56 with Ave. Years = 8.01	36	13	7	39 / 69.64%					
LGH Paramedics – Not Provided	Not Provided	Not Provided	Not Provided	Not Provided					

### PARAMEDICS CONTINUED:

	Third Quarter				Fourth Quarter				
Paramedics	Full Time	Part Time	Per Diem	Nat. Reg.	Tot. / Exp. Years	Full Time	Part Time	Per Diem	Nat. Reg.
Trinity –									
LGH Paramedics –									

### PARAMEDIC UNITS IN LOWELL:

#### 1<sup>st</sup> QUARTER –

##### Trinity EMS

P-26 (2 Paramedics) 24 hr. a day / 7 days per week

##### LGH Paramedics

No Data for 1<sup>st</sup> Quarter Provided

#### 3<sup>rd</sup> QUARTER –

##### Trinity EMS

##### LGH Paramedics

#### 2<sup>nd</sup> QUARTER –

##### Trinity EMS

##### LGH Paramedics

#### 4<sup>th</sup> QUARTER –

##### Trinity EMS

##### LGH Paramedics



### INTUBATIONS – 1<sup>st</sup> ATTEMPT:

	2012 Yearly Totals	2013 YEARLY TOTALS***	1 <sup>ST</sup> QUARTER 2014	2 <sup>ND</sup> QUARTER 2014	3 <sup>RD</sup> QUARTER 2014	4 <sup>TH</sup> QUARTER 2014
*Trinity Total	67 / 91 = 73.63%	47 / 64 = 73.44%	9 / 12 = 75%			
Trinity Lowell 1 <sup>st</sup> Attempt	11 / 12 = 91.67%	3 / 4 = 75%	2 / 2 = 100%			
Trinity Lowell total success rate	N/A	3 / 3 = 100%	2 / 2 = 100%			
Trinity *MAI in Lowell	0	0	0			
LGH Paramedics Total	Unavailable	Unavailable	Not Provided			
LGH Paramedics Lowell 1 <sup>st</sup> Attempt	123 / 143 = 86.01%	Unavailable	30 / 37 = 81.08%			
LGH Paramedics Lowell total success rate	N/A	Unavailable	36 / 37 = 97.30%			
LGH Paramedics **MAI in Lowell	60	Unavailable	14			

### IO SUCCESS RATES:

	2012 Yearly Totals***	2013 YEARLY TOTALS***	1 <sup>ST</sup> QUARTER 2014	2 <sup>ND</sup> QUARTER 2014	3 <sup>RD</sup> QUARTER 2014	4 <sup>TH</sup> QUARTER 2014
Trinity Total	48 / 49 = 97.96%	44 / 47 = 93.62%	11 / 11 = 100%			
Trinity Lowell	7 / 7 = 100%	2 / 2 = 100%	3 / 3 = 100%			
LGH Paramedics Total	Unavailable	Unavailable	Not Provided			
LGH Paramedics Lowell	30 / 32 = 93.75%	Unavailable	19 / 19 = 100%			

\*INTUBATION TOTAL – Total patients intubated / Total Patients Intubation attempted.

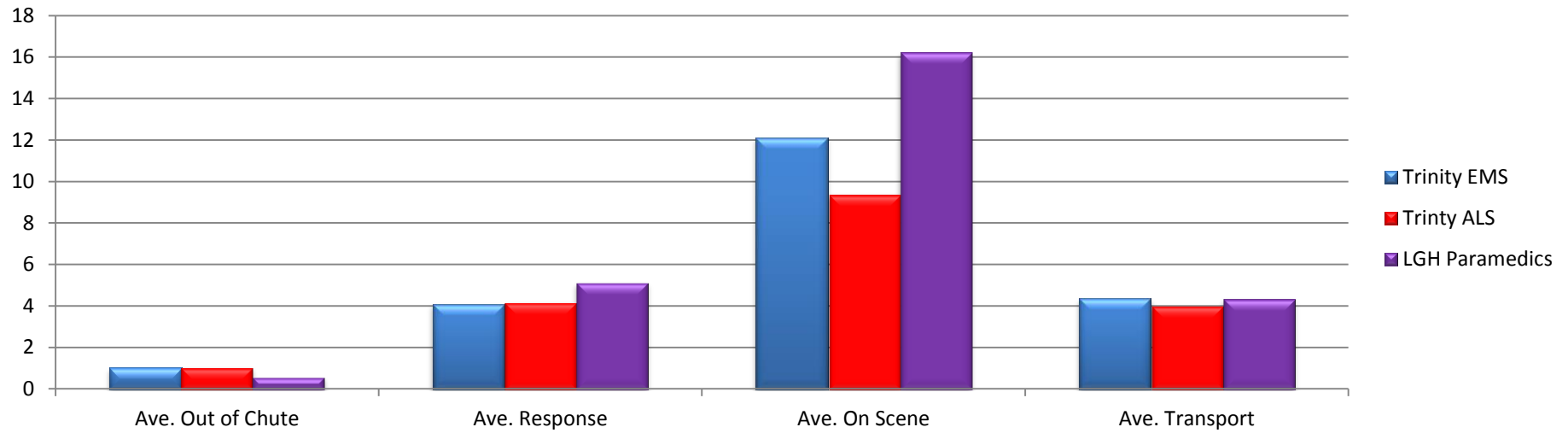
\*\*MAI – Medication Assisted Intubation, in Massachusetts, this requires the use of a Paralytic which is controlled & monitored by a special project waiver that Trinity EMS, Inc. is not included in. See also Glossary of Terms.

\*\*\* Because Quarterly Data was NOT provided, Yearly Data for that category is unavailable.

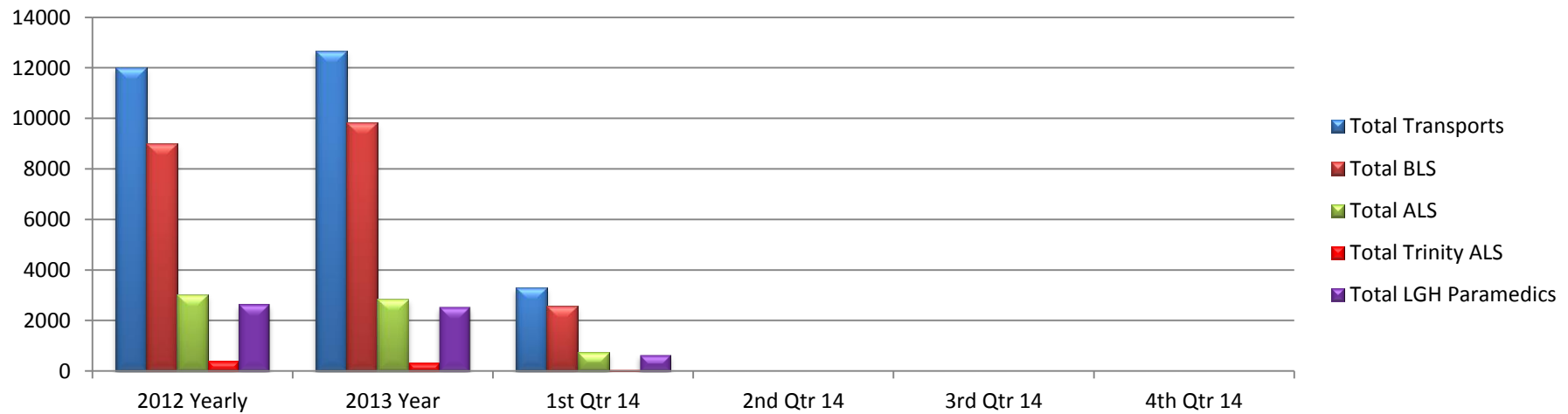


## GRAPHICS – CHARTS

### 1st Qtr Fractile Dispatch Times

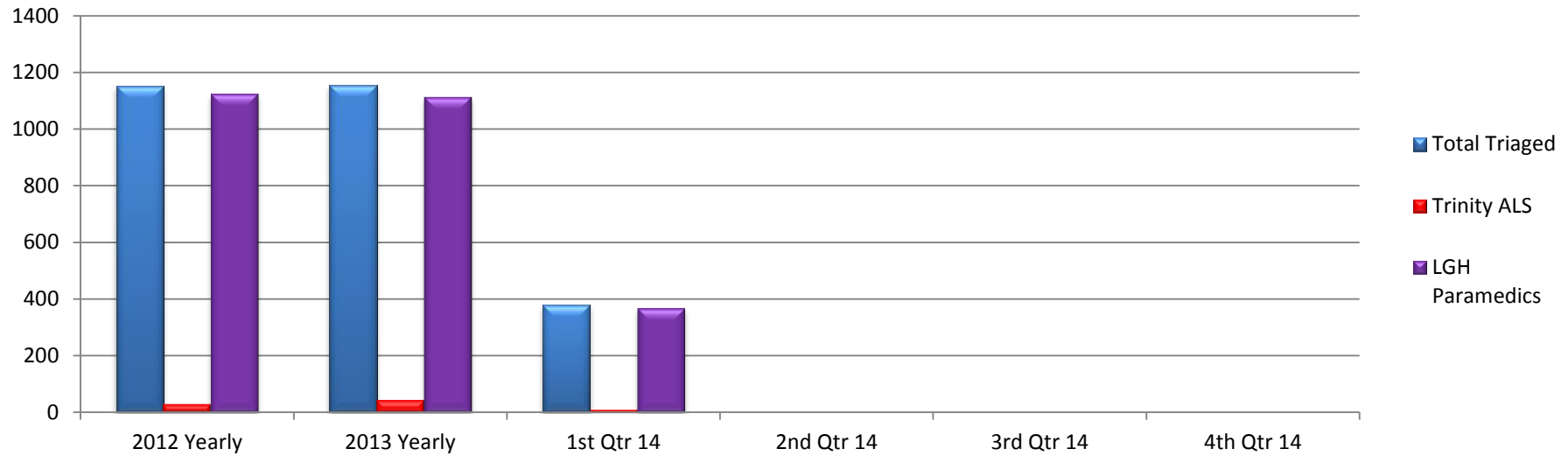


### Transports

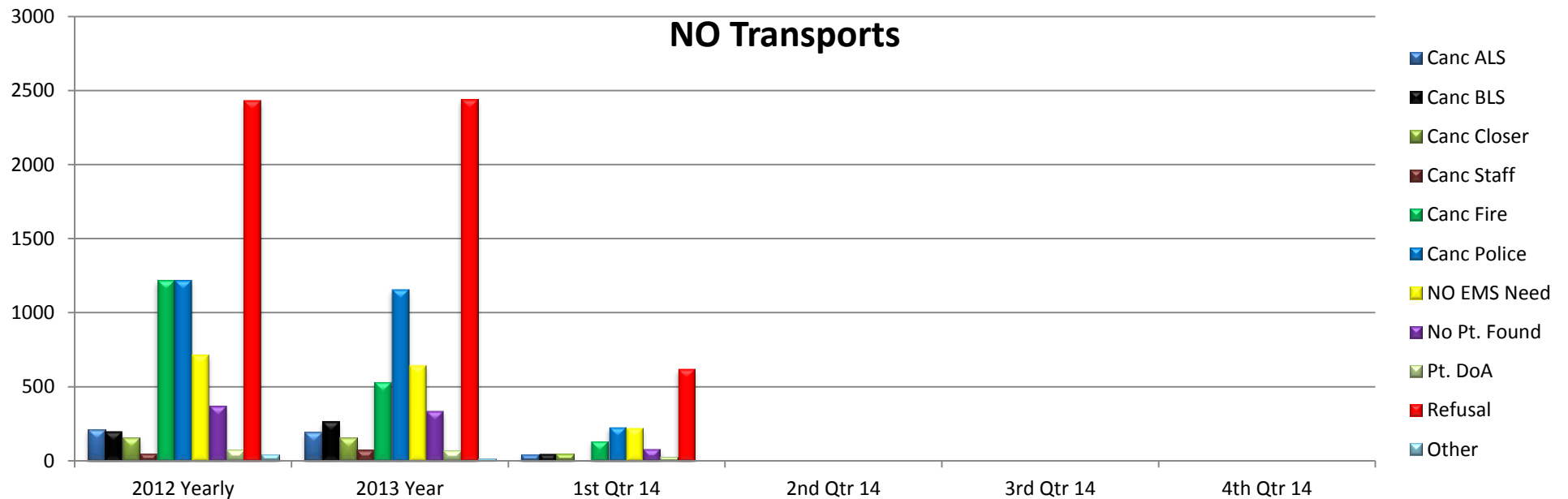




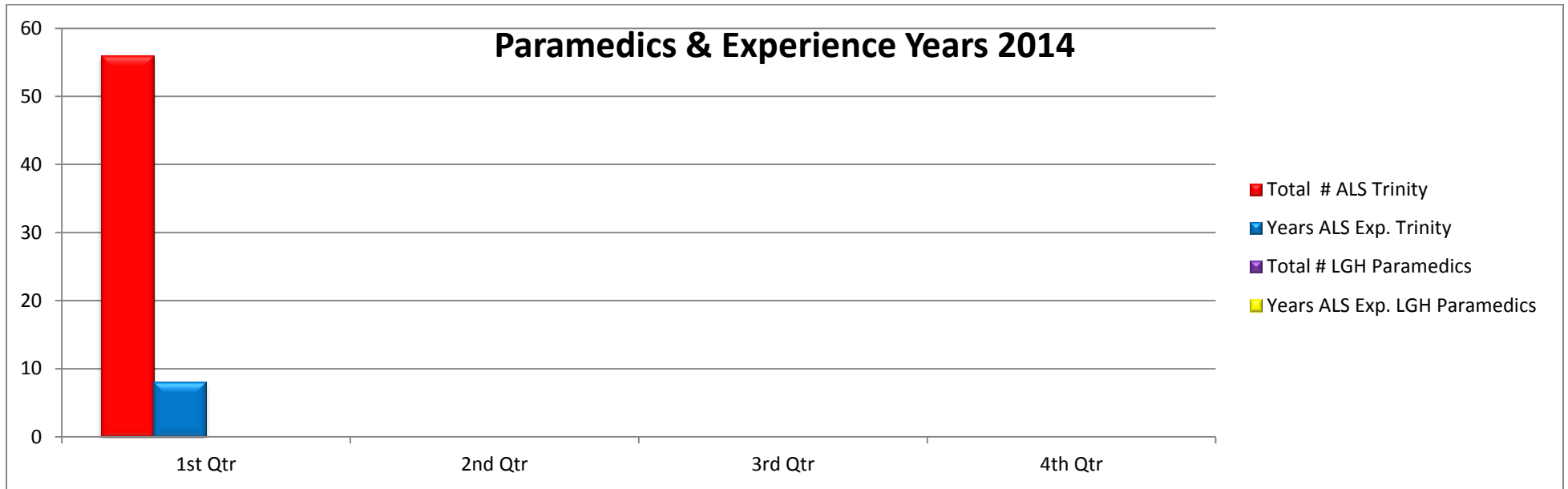
## Triaged Down



## NO Transports







### **GLOSSARY OF TERMS**

- ALS:** Advanced Life Support – may refer to vehicles staffed with at least one paramedic or refer to a paramedic level of patient care. Trinity Emergency ALS vehicles are staffed with two paramedics.
- A Response:** Is defined as dispatching or sending an ambulance to a request for service. In this report, a response is further sorted to include only emergency responses. These numbers do NOT include routine transfers such as dialysis patients or radiation treatment patients.
- A Transport:** Is defined as taking a patient in an ambulance to a destination.
- BLS:** Basic Life Support – may refer to a vehicle staffed with at least one emergency medical technician (EMT) or an EMT level of patient care. Trinity BLS Ambulances are staffed with two EMT's.
- EMD:** Emergency Medical Dispatch – a nationally recognized system whereby the Dispatchers are trained and follow a specific protocol to ascertain the nature of illness/injury and provide patient care instructions to the caller until the First Responders or Ambulance arrives.
- Intubation Attempt:** Is defined as insertion of the laryngoscope blade into the oral cavity for the purpose of inserting an endotracheal tube



<b><u>MAI:</u></b>	Medication Assisted Intubation is generally regarded as facilitating an intubation with the use of sedatives. In Massachusetts however, this term includes the use of Paralytics. The Massachusetts MAI program is not part of the standard scope of practice for a Paramedic. It is controlled through the Department of Public Health's Office of Emergency Medical Services' Medical Services Committee utilizing a Special Project Waiver.
<b><u>On Scene Time:</u></b>	The amount of time that has elapsed from the moment the ambulance is on scene to the moment that the ambulance beings transporting OR is released back into service.
<b><u>Out of Chute Time:</u></b>	The amount of time that elapses from the moment when the ambulance is dispatched to the moment the ambulance begins moving towards the call.
<b><u>On Time Performance Score:</u></b>	Is the percentage of calls that meet or exceed the response time criteria.
<b><u>Request for Service:</u></b>	When a dispatcher receives request for an ambulance usually via telephone or radio.
<b><u>Response Time:</u></b>	The amount of time that has elapsed from the moment the call is completely entered into the Dispatch system to the moment the ambulance arrives on scene.
<b><u>RSI:</u></b>	Rapid Sequence Intubation is the facilitation of intubation using both sedatives and paralytics.
<b><u>Service Zone Plan:</u></b>	M.G.L. Part I Title XVI Chpt. 111C Section I defines as <i>"a geographic area defined by and comprised of one or more local jurisdictions, in which a local jurisdiction may select and the department shall designate an EMS first response service and an ambulance service to provide EMS first response and primary ambulance response to the public within that defined geographic area, pursuant to section 10."</i> In addition to Section 1 and Section 10 of the M.G.L. Part I Title XVI Chpt. 111C, Service Zones are further addressed through Massachusetts Regulations 105 CMR 170.249.
<b><u>Transport Time:</u></b>	The amount of time that has elapsed from the moment the ambulance leaves the scene with a patient to the moment the ambulance arrives at the receiving facility.
<b><u>Triage Down:</u></b>	When a paramedic unit arrives at patient side and based on the patient condition determines that the patient may be treated and transported at the Basic Life Support (BLS) level. Note – there is no protocol for this practice, however, OEMS does address it through an administrative advisory: A/R 5-620.
<b><u>Triage Down Formulation:</u></b>	The denominator reflects the number of times an ALS Unit gets on scene. Therefore, when an ALS unit is cancelled prior to arrival or when the ALS unit is unable to intercept with the requesting BLS unit, those incidents are removed from the calculation.